

LISTING OF THE CLAIMS

A complete listing of the claims is provided below. This listing of claims will replace all prior versions and listings of claims in the application.

1. (Currently Amended) An air dryer for drying air, comprising:
a refrigerant system; and
a heat exchanger comprising a phase change material, wherein the ~~refrigerant system is adapted for cooling the heat exchanger~~ phase change material can be configured to extract heat from the air and reduce cycling of the refrigerant system.
2. (Original) An air dryer according to claim 1, wherein the air is selected from a group consisting of gas, compressed gas and compressed air.
3. (Original) An air dryer according to claim 1, further comprising a condensate separator.
4. (Currently Amended) An air dryer according to claim ~~1~~ 3, wherein the condensate separator further comprises a wire mesh.
5. (Currently Amended) An air dryer according to claim ~~1~~ 4, wherein the wire mesh comprises stainless steel, copper, or plastic.
6. (Original) An air dryer according to claim 1, wherein the phase change material changes from solid to liquid and from liquid to solid.
7. (Original) An air dryer according to claim 6, wherein the phase change material is an organic paraffin.

8. (Original) An air dryer according to claim 1, wherein the heat exchanger comprises an air-to-air exchanger and an air-to-refrigerant exchanger.

9. (Original) An air dryer according to claim 8, wherein the air-to-refrigerant exchanger comprises the phase change material.

10. (Currently Amended) A method of drying air, which method comprises:
providing a refrigerant system ~~and;~~
a heat exchanger comprising a phase change material, and
using the ~~refrigerant system for cooling the heat exchanger phase change material to~~
extract heat from the air and to reduce cycling of the refrigerant system.

11. (Original) A method of drying air according to claim 10, wherein the air is selected from a group consisting of gas, compressed gas and compressed air.

12. (Original) A method of drying air according to claim 10, further comprising a condensate separator.

13. (Currently Amended) A method of drying air according to claim-40 12, wherein the condensate separator further comprises a wire mesh.

14. (Currently Amended) A method of drying air according to claim-40 13, wherein the wire mesh comprises stainless steel, copper, or plastic.

15. (Original) A method of drying air according to claim 10, wherein the phase change material changes from solid to liquid and from liquid to solid.

16. (Original) A method of drying air according to claim 10, wherein the phase change material is an organic paraffin.

17. (Original) A method of drying air according to claim 10, wherein the heat exchanger comprises an air-to-air exchanger and an air-to-refrigerant exchanger.

18. (Original) A method of drying air according to claim 17, wherein the air-to-refrigerant exchanger comprises the phase change material.

19. (Currently Amended) A means for drying air, comprising:
a refrigeration means; and
a heat exchanger means comprising a phase change material,
wherein the ~~refrigeration means is adapted for cooling the heat exchanger means~~ phase change material can be configured to extract heat from the air and reduce cycling of the refrigeration means.

20. (Original) A means for drying air according to claim 19, wherein the air is selected from a group consisting of gas, compressed gas and compressed air.

21. (Original) A means for drying air according to claim 19, further comprising a condensate separator.

22. (Currently Amended) A means for drying air according to claim ~~19~~ 21, wherein the condensate separator further comprises a wire mesh.

23. (Currently Amended) A means for drying air according to claim ~~19~~ 22, wherein the wire mesh comprises stainless steel, copper, or plastic.

24. (Original) A means for drying air according to claim 19, wherein the phase change material changes from solid to liquid and from liquid to solid.

25. (Original) A means for drying air according to claim 19, wherein the phase change material is an organic paraffin.

26. (Original) A means for drying air according to claim 19, wherein the heat exchanger comprises an air-to-air exchanger and an air-to-refrigerant exchanger.

27. (Original) A means for drying air according to claim 26, wherein the air-to-refrigerant exchanger comprises the phase change material.